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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,225	02/28/2002	David F. Erb JR.	01573.000900	5081

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EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,225

Applicant(s)

ERB ET AL.

Examiner

Ula C Ruddock

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 15-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, drawn to a fireblocking fabric, classified in class 442, subclass 402.
 - II. Claims 15-23, drawn to a fireblocking aircraft seat cushion covering, classified in class 442, subclass 35.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful by itself or as fire-resistant garments and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Brendan Mee on May 8, 2003, a provisional election was made without traverse to prosecute the invention of Group II, claims 15-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 21 and 22, the phrase "hook-and-loop type fasteners" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those

encompassed by "type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 15-19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorder et al. (US 5,534,325) in view of Blaustein et al. (US 4,750,443). Jorder et al. disclose a flame barrier comprising a nonwoven fabric layer for use a planar multilayer structure, especially a vehicle or aircraft passenger seat. The flame barrier contains staple fibers made of para-aramid mixed with preoxidized polyacrylonitrile staple fibers (abstract). The seat includes the flame barrier and, on the visible side, a top material (col 1, ln 10-13), which the Examiner is equating to the fabric cover of the present invention. The cover material is woven fabric (col 3, ln 62-64). The mass per unit area of the flame barrier is 100-210 g/m², or 2.94-6.19 oz/yd² and comprises of either para-aramid staple fibers alone, or mixed with 20-60% of preoxidized polyacrylonitrile fibers (col 2, ln 1-5). It is the Examiner's position that these amounts meet the fiber amounts required by the present invention, i.e. 10-90% para-aramid fibers and 90-10% polyacrylonitrile fibers. The nonwoven fabric can be reinforced with meta-aramid fibers that are woven in a proportion of 4 to

24 per inch in the warp direction and from 4 to 15 per cm in the weft direction (col 3, ln 15-21). It should be noted that the Examiner is equating the woven reinforcing m-aramid fibers of Jorder et al. to the woven scrim of the present invention. The nonwoven fabric layer is needled (col 2, ln 60-67). Jorder et al. disclose the claimed invention except for the teaching that the seat cushion has a dress cover made of fabric or leather and that the fabric cover and fireblocking fabric is provided with hook and loop type fasteners.

Blaustein et al. disclose a fire-blocking textile fabric suitable for use in an aircraft seat cushion (abstract). The fire blocking fabric completely covers the seat cushion. The seat cushion is then covered further with an outer woven dress fabric or other material, such as leather (col 3, ln 7-11). Closure devices used to make slip covers of the fire-blocking sheet and to fasten the dress fabric to the slip covered cushions include hook and loop fasteners (col 3, ln 65-58 to col 4, ln 1-11). It would have been obvious to one having ordinary skill in the art to have used Blaustein's dress fabric on the seat cushion of Jorder et al., motivated by the desire to create a seat cushion having the desired aesthetic properties. Furthermore, it would have been obvious to one having ordinary skill in the art to have used the hook and loop fasteners of Blaustein on the seat cushion of Jorder et al., motivated by the desire to create a durable fastening system.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorder et al. (US 5,534,325) and Blaustein et al. (US 4,750,443) as applied to claim 15 above, and further in view of Erb, Jr. (US 6,383,623). Jorder et al. and Blaustein et al. disclose the claimed invention except for the teaching that the fabric layer has been treated with a fluoropolymer to impart water repellency.

Erb, Jr. disclose high temperature thermal insulation containing a fireblocking layer

(abstract). A finishing treatment can be applied to the insulation material; the finishing treatment can include a PTFE polymer emulsion to make the insulation have some degree of water repellency (col 14, ln 26-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the PTFE polymer emulsion on the seat cushion of Jorder et al. and Blaustein et al., motivated by the desire to create a seat cushion that is resistant to liquid spills.

11. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorder et al. (US 5,534,325) and Blaustein et al. (US 4,750,443) as applied to claim 15 above, and further in view of Smith, Jr. (US 4,865,906). Jorder et al. and Blaustein et al. disclose the claimed invention except for the teaching that the fireblocking fabric comprises about 30-60% by weight para-aramid fibers, about 10-40% polyacrylonitrile fibers and about 5 to 35% by weight of recycled polybenzimidazole fibers, para-aramid fibers, meta-aramid fibers, or mixtures thereof.


Smith, Jr. disclose a flame retardant yarn blend comprising 25-85% polyacrylonitrile blended with two or more of the following synthetic fibers, e.g. Kevlar and polybenzimidazole (col 2, ln 30-36). A preferred blend of fibers comprise about 30-75% by weight of oxidized polyacrylonitrile, 0-35% by weight of p-aramid, and about 10-35% by weight polybenzimidazole (col 2, ln 38-41). It would have been obvious to one having ordinary skill in the art to have used Smith, Jr.'s flame retardant yarn blend in the fire blocking fabric of Jorder et al. and Blaustein et al., motivated by the desire to create a fabric layer having excellent fire retarding properties and excellent washability and shape retaining properties.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is (703) 305-0066. The Examiner can normally be reached Monday through Thursday from 6:30 AM to 5 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor Terrel Morris can be reached at (703) 308-2414.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-2351.

Ula C. Ruddock 
Patent Examiner
Art Unit 1771
May 18, 2003

